



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

OFFICE OF ENVIRONMENTAL CLEANUP
EMERGENCY MANAGEMENT PROGRAM

Site Specific Sampling Plan

Project Name: Bremerton MGP Waste Release

Site ID: 10JS

Author: Bryan Vasser

Company: ENE

Date Completed: 10/28/10

This Site Specific Sampling Plan (SSSP) is prepared and used in conjunction with the Quality Assurance Plan (QAP) for the Emergency Response Unit for collecting samples during this Removal Program project. The information contained herein is based on the information available at the time of preparation. As better information becomes available, this SSSP will be adjusted.

When inadequate time is available for preparing the SSSP in advance of the sampling event, a Field Sampling Form may be prepared on-site immediately prior to sampling. This full length version of the SSSP is written after the sampling event and the completed Field Sampling Form attached to it.

1. Approvals

Name, Title	Telephone, Email, Address	Signature
Kathy Parker On-Scene Coordinator	206-553-0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	
Mike Boykin ERU Quality Assurance Coordinator	206-553-6362, boykin.michael@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	

I. Project Management and Organization

2. Personnel and Roles involved in the project:

Name	Telephone, Email, Company, Address	Project Role	Data Recipient
Kathy Parker	206 553 0062, parker.kathy@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	On Scene Coordinator	Yes
Bryan Vasser	206-624-9537, bvasser@ene.com 720 3 rd Ave W, Suite 1700 Seattle, WA 98104	Author of SSSP, START Project Manager	Yes
Mike Boykin	206-553-6362, boykin.michael@epa.gov USEPA , M/S: ECL-116, 1200 Sixth Ave. Suite 900, Seattle, WA 98101	ERU Quality Assurance Coordinator	No
Mark Woodke	206-624-9537, mwoodke@ene.com 720 3 rd Ave W, Suite 1700 Seattle, WA 98104	START Quality Assurance Reviewer	Yes

Michael Erdahl	Friedman and Bruya 3012 16th Avenue West Seattle, WA 98119 206 285-8282	Laboratory contact	No
Gerald Dodo	EPA Region 10 Lab (MEL) 7411 Beach Drive East, Port orchard, WA 98366	Chemistry Supervisor/Lab Contact	No

3. Physical Description and Site Contact Information:

Site Name	Bremerton MGP Waste Release		
Site Location	Beach north of 1725 Pennsylvania Ave, Bremerton, WA See figure 1-1		
Property Size	1/3 acre		
Site Contact	Shayne Cothorn, WDNR	Phone Number: 360 902 1064	
Nearest Residents	100 yds	Direction: S	
Primary Land Uses Surrounding the Site	Industrial and Residential		

4. The proposed schedule of project work follows:

Activity	Estimated Start Date	Estimated Completion Date	Comments
SSSP Review/Approval	10/9/10	10/10/10	
Mobilize to / Demobilize from Site	10/5/10	10/30/10	
Sample Collection	10/5/10	10/11/10	
Laboratory Sample Receipt	10/5/10	10/29/10	10/5 for MEL, 10/11 for Friedman and Bruya
Laboratory Analysis	10/12/10	11/5/10	1 week TAT for all samples
Data Validation	10/26/10	11/26/10	

5. Historical and Background Information

Describe briefly what you know about the site that is relevant to sampling and analysis for this investigation.

On 10/4/2010 Kitsap county reported a release of oily material to the beach north of the old Bremerton Gasworks. On 10/5/2010 OSC Parker visited the site and collected product samples for analysis of SVOC at the Region 10 lab. EPA and USCG attempted to contain visible oil on the beach sediment surface with booms until the pipe and contaminated sediments could be removed. This sampling plan will address whether CERLCA contaminants are present at concentrations that pose a hazard and the extent of contaminated sediments that resulted from the leaking pipe.

6. Conceptual Site Model

Example: Contaminant: Mercury

Transport Mechanism: vapor moving on air currents

Receptors: people living in the house

Contaminants: Coal Gas Tar, PAHs

Transport Mechanisms: leaking from a pipe and contaminated sediments to the surface water of Port Washington Narrows, tidal action and rainfall moving contaminants into marine waters, direct contact or ingestion by visitors to the beach or marine animals living in the beach sediments

Receptors: Visitors to the beach, marine animals living in the beach sediments, nearby shellfish beds, marine organisms in the off-shore waters

7. Decision Statement

Examples: 1) Determine whether surface contamination exceeds the established action level;

2) Determine appropriate disposal options for contaminated materials.

The decision(s) to be made from this investigation is/are to:

- 1) Determine extent of visible oily contamination.
- 2) Determine if CERCLA contaminants are present above sediment action levels.
- 3) Determine location of the concrete pipe from the Sesko property.
- 4) Determine if contamination is entering the site from shore or from the inlet.

8. Action Level

State the analyte, concentration, and units for each selected action level. Describe the rationale for choosing each action level and its source (i.e. MTCA, PRG, ATSDR, etc.) Example: The action level for total mercury in soil is 6.7 mg/kg (from Regional Screening Level residential).

The action level for coal gas tar is visible oil or a positive result on the static sheen test. EPA Regional Screening Levels for several Creosote related compounds are presented below:

Analyte	Residential Soil Screening Level (mg/kg)
~Acenaphthene	3.4E+03
~Anthracene	1.7E+04
~Benz[a]anthracene	1.5E-01
~Benzo(j)fluoranthene	5.3E-01
~Benzo[a]pyrene	1.5E-02
~Benzo[b]fluoranthene	1.5E-01
~Benzo[k]fluoranthene	1.5E+00
~Chrysene	1.5E+01
~Dibenz[a,h]anthracene	1.5E-02
~Dibenzo(a,e)pyrene	5.3E-02
~Dimethylbenz(a)anthracene, 7,12-	1.8E-03
~Fluoranthene	2.3E+03
~Fluorene	2.3E+03
~Indeno[1,2,3-cd]pyrene	1.5E-01
~Methylnaphthalene, 1-	2.2E+01
~Methylnaphthalene, 2-	3.1E+02
~Naphthalene	3.6E+00
~Nitropyrene, 4-	5.3E-01

II. Data Acquisition and Measurement Objectives

9. Site Diagram and Sampling Areas

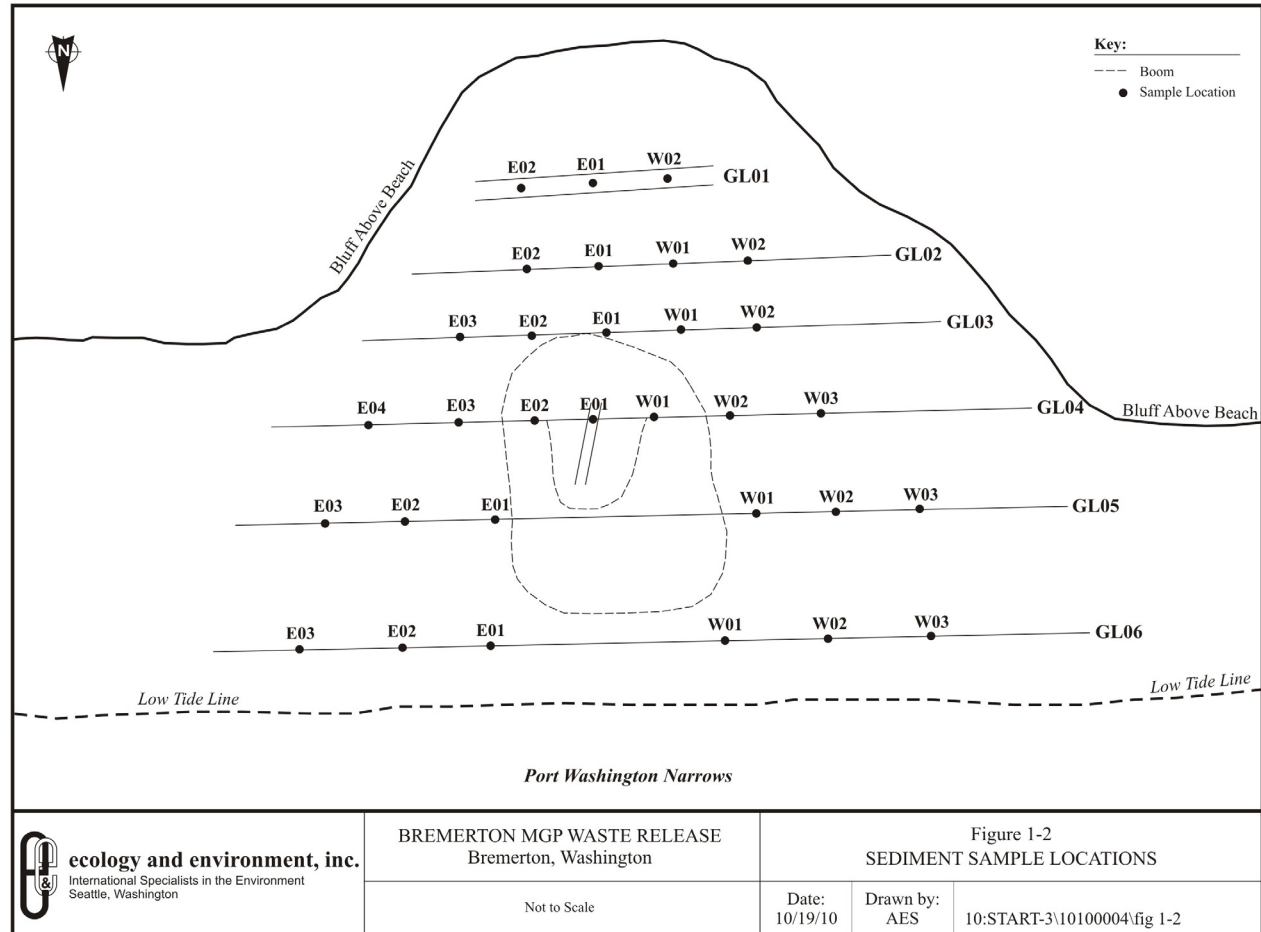
A Sampling Area is an area within in which a specific action will be performed.

Examples : 1) Each drum on the site is a Sampling Area;

2) Each section of sidewalk in front of the residence is a Sampling Area;

3) Each sampling grid section is a Sampling Area.

The site diagram below displays locations that were sampled on 10/10/2010.



10. The Decision Rules

These can be written as logical If..., Then... statements. Describe how the decisions will be made and how to address results falling within the error range of the action level. Examples: 1) In the Old Furnace Sampling Area, the soil in the area around the furnace structure will be excavated until sample analysis with XRF shows no mercury concentrations in surface soil above the lower limit of the error associated with the action level, 18.4 mg/kg. 2) If the concentrations of contaminants in a SA are less than the lower limit of the error associated with the action level, then the area may be characterized as not posing an unacceptable risk to human health or the environment and may be dismissed from additional RP activities. The area may be referred to other Federal, State or Local government agencies.

The following statement(s) describe the decision rules to apply to this investigation:

During Removal Assessment:

- 1) On grid line (GL) 01, if the pipe is encountered, the direction of the pipe will be known.
- 2) If there is visible oil in a 1 foot deep hole dug on a GL, the samplers will move 5 feet away from the pipe (either to the east or west) and dig a new hole.
- 3) If there is no visible creosote in a 1 foot deep hole dug on a GL, a sample will be collected from that hole, and then from 2 more holes each one 20 feet (continuing either east or west) from the previous sample location.

If coal gas tar contamination is visible in the sediments or the sediments produce a sheen in the static sheen test or concentrations of CERCLA contaminants exceed sediment actions level, removal of the sediment may be considered.

11. Information Needed for the Decision Rule

What information needs to be collected to make the decisions – this includes non-sampling info as well: action levels, climate history, direction of water flow, etc. Examples: Current and future on-site and off-site land use; wind direction, humidity and ambient temperature; contaminant concentrations in surface soil.

The following inputs to the decision are necessary to interpret the analytical results:

Site history
Ability of the sediments to cause a sheen
CERCLA contaminants presence in the sediments
Direction of pipe as it enters the Sesko property

12. Sampling and Analysis

For each SA, describe:

1. sampling pattern (random, targeted, scheme for composite)
2. number of samples, how many to be collected from where, and why
3. sample type (grab, composite)
4. matrix (air, water, soil)
5. analytes and analytical methods
6. name and locations of off-site laboratories, if applicable.

The matrix for the oil from the pipe is product. The matrix for all other samples is beach sediment. All analyses will be performed by an off-site lab.

Two targeted, product grab sample will be collect from the break in the pipe to determine the type of contamination that is being released to the site. The sample will be analyzed for PAHs via HCID at MEL.

The remaining samples will be analyzed by Friedman and Bruya lab:

31 grab samples will be collected on a grid in areas where sediments are not visibly contaminated with oil. They will be analyzed at an off-site lab for VOCs, SVOCs, and their ability to produce sheen (as defined by the Static Sheen Test).

One composite of the 4 highest contaminated grab samples will be tested for TCLP - full suite.

13. Applicability of Data (place an X in front of the data categories needed, explain with comments)

Do the decisions to be made from the data require that the analytical data be:

1) definitive data, 2) screening data (with definitive confirmation) or 3) screening data (without definitive confirmation)?

X A) Definitive data is analytical data of sufficient quality for final decision-making. To produce definitive data on-site or off-site, the field or lab analysis will have passed full Quality Control (QC) requirements (continuing calibration checks, Method Detection Limit (MDL) study, field duplicate samples, field blank, matrix spikes, lab duplicate samples, and other method-specific QC such as surrogates) AND the analyst will have passed a Precision and Recovery (PAR) study AND the instrument will have a valid Performance Evaluation sample on file. This category of data is suitable for: **1) enforcement purposes, 2) determination of extent of contamination, 3) disposal, 4) RP verification or 5) cleanup confirmation.**
Comments:

B) Screening data with definitive confirmation is analytical data that may be used to support preliminary or intermediate decision-making until confirmed by definitive data. However, even after confirmation, this data is often not as precise as definitive data. To produce this category of data, the analyst will have passed a PAR study to determine analytical error AND 10% of the samples are split and analyzed by a method that produced definitive data with a minimum of three samples above the action level and three samples below it.
Comments:

C) Screening data is analytical data which has not been confirmed by definitive data. The QC requirements are limited to an MDL study and continuing calibration checks. This data can be used for making decisions: **1) in emergencies, 2) for health and safety screening, 3) to supplement other analytical data, 4) to determine where to collect samples, 5) for**

waste profiling, and 6) for preliminary identification of pollutants. This data is not of sufficient quality for final decision-making.

Comments:

14. Special Sampling or Analysis Directions

Describe any special directions for the planned sampling and analysis such as additional quality controls or sample preparation issues. Examples: 1) XRF and Lumex for sediment will be calibrated before each day of use and checked with a second source standard. 2) A field blank will be analyzed with each calibration to confirm the concentration of non-detection. 3) A Method Detection Limit determination will be performed prior to the start of analysis so that the lower quantitation limit can be determined. 4) If particle size is too large for accurate analyses, the samples will be ground prior to analysis. If the sample contains too much moisture for accurate analyses, the sample will be decanted and air dried prior to analysis.

15. Method Requirements

[Describe the restrictions to be considered in choosing an analytical method due to the need to meet specific regulations, policies, ARARs, and other analytical needs. Examples: 1) Methods must meet USEPA Drinking Water Program requirements. 2) Methods must achieve lower quantitation limits of less than 1/10 the action levels. 3) Methods must be performed exactly as written without modification by the analytical laboratory.]

TCLP analyses require SW846-equivalent methods.

16. Sample Collection Information

[Describe any activities that will be performed related to sample collection]

The applicable sample collection Standard Operating Procedures (SOPs) or methods will be followed and include:

- Field Activity Logbook SOP
- Sample Packaging and Shipping SOP
- Sampling Equipment Decontamination SOP
- Sediment Sampling SOP
- Instrument SOPs:
- Other SOPs:

17. Optimization of Sampling Plan (Maximizing Data Quality While Minimizing Time and Cost)

[Describe what choices were made to reduce cost of sampling while meeting the needed level of data quality. Example: The XRF will be used in situ whenever possible to achieve accurate results. Reproducibility and accuracy of in situ XRF analyses will be checked by collecting, air drying, analyzing and comparing five in situ samples at the start of sampling. Where interferences are suspected, steps will be taken to eliminate the interferences by mechanisms such as drying, grinding or sieving the samples or analyzing them using the Lumex with soil attachment.]

To reduce the number of samples requiring analysis, areas where visible oil exists will not be sampled because those areas are already targeted for removal action.

The format for sample number identification is summarized in Table 1. Sample collection and analysis information is summarized in Table 2.

**Table 1
SAMPLE CODING**

Project Name: _____Bremerton MGP Waste Release_____

Site ID: _10JS_

SAMPLE NUMBER ⁽¹⁾

Digits	Description	Code (Example)
1,2,3,4	Year and Month Code	1010 (YYMM)
5,6,7,8	Consecutive Sample Number (grouped by SA as appropriate)	9001 (First sample of SA)

**SAMPLE NAME / LOCATION ID ⁽²⁾
(Optional)**

1,2	Grid Line	GL – Grid Line
3,4	Consecutive Sample Number (North from the bluff)	01 – First sample of Sampling Area
5,6	Direction from Center Line (estimated Pipe Location)	E – East W - West
7,8	Consecutive Sample Number in a direction	01

Notes:

(1) The Sample Number is a unique, 8-digit number assigned to each sample.

(2) The Sample Name or Location ID is an optional identifier that can be used to further describe each sample or sample location.

Table 2. Sampling and Analysis

Data Quality	Sampling Area	Matrix	Sampling Pattern	Sample Type	Data Quality	Number of Field Samples	Analyte or Parameter	Method Number	Action Level	Method Quant. Limit	#/type of Sample Containers per Sample	Preservative	Hold Time	Field QC
Lab Analysis	Oil from Pipe	Product	Targeted	Grab	Definitive	2	SVOCs	EPA 8270D			1 – 8 oz jar	None		None
Lab Analysis	All Decision Areas	Sediment	Grid	Grab	Definitive	31	SVOCs, VOC,	EPA 8270D EPA 5035 / 8260B			3 Core-n-one, 1 - 8-oz jar	none		1 MS/MSD per 20
Lab Analysis	All Decision Areas	Sediment	targeted	Composite	Definitive	1	TCLP	EPA 1311			4 – 8 oz jar	none		None
Lab Analysis	All Decision Areas	Sediment	Grid	Grab	Definitive	31	Sheen	Static Sheen Test			1 - 8 oz jar	none		none

Note: For matrix spike and/or duplicate samples, no extra volume is required for air (unless co-located samples are collected), oil, product, or soil samples except soil VOC or NWTPH-Gx samples (triple volume). Triple volume is also required for organic water samples (double volume for inorganic).

Table 3. Common Sample Handling Information

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
Metals	Metals Not including Mercury or Hexachrome. Includes TAL, PP, RCRA lists)	Solid	EPA 6000 / 7000 Series	Glass Jar	200 g	n/a	None	6 months	SW-846 ch. 3
		Aqueous	EPA 6000 / 7000 Series	PTFE or HDPE	600 mL	HNO ₃ to pH < 2	Not listed	6 months	SW-846 ch. 3
	Mercury	Solid	EPA 7471B	Glass Jar	200 g	n/a	≤ 6° C	28 days	SW-846 ch. 3
		Aqueous	EPA 7470A	PTFE or HDPE	400 mL	HNO ₃ to pH < 2	Not listed	28 days	SW-846 ch. 3
	Hexavalent Chromium, (Hexachrome, Cr+6)	Solid	Lab-specific soil extraction modification, EPA 7196A	Glass Jar	100 g	n/a	≤ 6° C	28 days to extraction	SW-846 ch. 3
		Aqueous	EPA 218.6 (Drinking Water)	PTFE or HDPE	400 mL	n/a	≤ 6° C	24 hours	SW-846 ch. 3
	XRF	Solid (in situ; on the ground surface)	6200	none	n/a	none	none	Analyze Immediately	n/a
		Solid (ex situ)	6200	plastic bag	200 g	none	none	6 months	n/a
VOCs	VOCs / BTEX	Solid	EPA 5035 / 8260B	*	*	*	*	2 days to lab / 14 days	SW-846 ch. 4
		Aqueous	EPA 8260B	Amber Vial with Septa Lid	2 x 40 mL	HCl to pH < 2	≤ 6° C (headspace free)	14 days	SW-846 ch. 4
SVOCs	SVOCs / PAHs	Solid	EPA 8270D	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8270D	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
PCBs and Dioxins/Furans	PCBs	Solid	EPA 8082	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8082	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
	Dioxins/Furans	Solid	EPA 8280 or 8290	Glass Jar	8 ounces	n/a	≤ 6° C	none	SW-846 ch. 4
		Aqueous	EPA 8280 or 8290	Amber Glass	2 x 1 L	n/a	≤ 6° C	none	SW-846 ch. 4
Pesticides and Herbicides	Chlorinated Pesticides	Solid	EPA 8081	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8081	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
	Chlorinated Herbicides	Solid	EPA 8151	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	SW-846 ch. 4
		Aqueous	EPA 8151	Amber Glass	2 x 1 L	n/a	≤ 6° C	7 days	SW-846 ch. 4
NWTPH	Gasoline-Range Organics	Solid	TPHs/NWTPH-Gx	Amber Glass Jar with Septa Lid	4 ounces	n/a	≤ 6° C (headspace free)	14 days	Method
		Aqueous	TPHs/NWTPH-Gx	Amber Vial with Septa Lid	2 x 40 mL	pH < 2 with HCl	≤ 6° C (headspace free)	7 days unpreserved 14 days preserved	Method
	Diesel-Range Organics	Solid	3510, 3540/3550, 8000	Glass Jar	8 ounces	n/a	≤ 6° C	14 days	Method

Analysis Type	Sub Analysis	Matrix	Analytical Method	Container Type	Minimum Volume	Preservative	Temperature/ Storage	Hold Time	Source
		Aqueous	3510, 3540/3550, 8000	Glass Amber	2 x 1 L	pH < 2 with HCl	≤ 6° C	7 days unpreserved 14 days preserved	Method
Geotechnical	Particle Size Analysis	Solid	ASTM D-422	Glass Jar or Plastic Bag	2 x 8 ounce	none	n/a	n/a	Method
Miscellaneous	pH	Solid	EPA 9045	Glass Jar	8 ounces	n/a	n/a	Analyze Immediately	SW-846 ch. 3
		Aqueous	EPA 9040	PTFE	25 mL	n/a	n/a	Analyze Immediately	SW-846 ch. 3
	Total Organic Carbon (TOC)	Solid	SW-846 9060	Glass Jar	100 mL	n/a	≤ 6° C	28 days	SW-846
		Aqueous	EPA 415.1	PTFE or HDPE	200 mL	store in dark HCL or H ₂ SO ₄ to pH <2	≤ 6° C	7 days unpreserved 28 days preserved	Method
	Cyanide	Solid	SW-846 9013	Glass Jar	5 g	n/a	≤ 6° C	14 days	SW-846 ch. 3
		Aqueous	SW-846 9010C	PTFE or HDPE	500 mL	NaOH to pH > 12	≤ 6° C	14 days	SW-846 ch. 3
	Conductivity	Aqueous	EPA 120.1	PTFE or HDPE	100 mL	n/a	n/a	Analyze Immediately	Method
	Hardness	Aqueous	EPA 130.1	PTFE or HDPE	1 x 1 L	HNO ₃ to pH<2	≤ 6° C	28 days	Method
	Total Suspended Solids	Aqueous	EPA 160.2	PTFE or HDPE	100 mL	n/a	≤ 6° C	7 days	Method
	Total Dissolved Solids	Aqueous	EPA 160.1	PTFE or HDPE	100 mL	n/a	≤ 6° C	7 days	Method
	Nitrate/nitrite	Aqueous	EPA 353.2	PTFE or HDPE	1 x 250 mL	H ₂ SO ₄ to pH <2	≤ 6° C	28 days	Method
	Nitrate	Aqueous	SW-846 9210A	PTFE or HDPE	1,000 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Nitrite	Aqueous	SW-846 9216	PTFE or HDPE	25 mL	n/a	≤ 6° C	48 hours	SW-846 ch. 3, Method
	Fluoride	Aqueous	SW-846 9214	PTFE or HDPE	300 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Chloride	Aqueous	SW-846 9250	PTFE or HDPE	50 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Sulfate	Aqueous	SW-846 9035	PTFE or HDPE	50 mL	n/a	≤ 6° C	28 days	SW-846 ch. 3
	Sulfide	Solid	SW-846 9215	Glass Jar	1 x 4 ounces	Fill sample surface with 2N zinc acetate until moistened.	≤ 6° C (headspace free)	7 days	SW-846 ch. 3
		Aqueous	SW-846 9031	PTFE or HDPE	100 mL	4 drops 2N zinc acetate/100 mL sample; NaOH to pH>9.	≤ 6° C (headspace free)	7 days	SW-846 ch. 3

Key:

* = See individual methods. We typically collect 3xEnCore-type samplers and 1x40 mL VOA vial per sample, keep at ≤ 6° C with no chemical preservative, and they must be at the lab within 48 hours of collection.					
C	= Celsius	HNO ₃	= nitric acid	SVOCs	= semivolatile organic compounds
Cr	= chromium	L	= liter	SW-846	= EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
EPA	= Environmental Protection Agency	mL	= milliliter	TAL	= Target Analyte List
g	=grams	n/a	= not applicable	TPH	= total petroleum hydrocarbons
H ₂ SO ₄	= sulfuric acid	NaOH	= sodium hydroxide	VOA	= Volatile Organic Analysis
HCL	= hydrochloric acid	PCBs	= polychlorinated biphenyls	VOCs	= Volatile Organic Compounds
HDPE	= high-density polyethylene	PTFE	= polytetrafluoroethylene		
Hg	= mercury	RCRA	= Resource Conservation and Recovery Act		

III. Assessment and Response

A Sample Plan Alteration Form (SPAF) will be used to describe project discrepancies (if any) that occur between planned project activities listed in the final SSSP and actual project work. The completed SPAF will be approved by the OSC and QAC and appended to the original SSSP.

A Field Sampling Form (FSF) may be used to capture the sampling and analysis scheme for emergency responses in the field and then the FSF pages can be inserted into the appropriate areas of the final SSSP.

Corrective actions will be assessed by the sampling team and others involved in the sampling and a corrective action report describing the problem, solution, and recommendations will be forwarded to the OSC and the ERU QAC.

IV. Data Validation and Usability

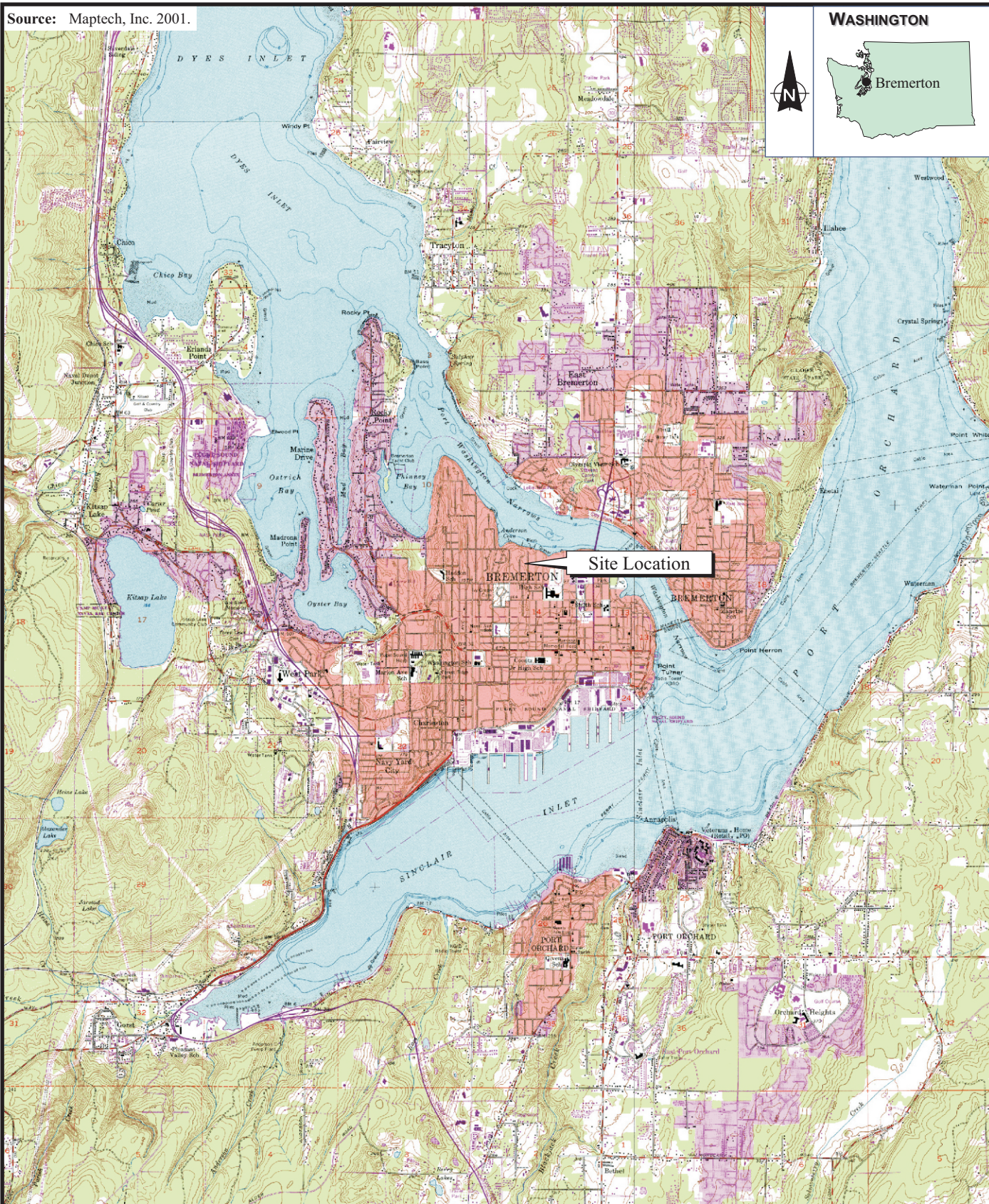
The sample collection data will be entered into Scribe and Scribe will be used to print lab Chains of Custody. Results of field and lab analyses will be entered into Scribe as they are received and uploaded to Scibe.net when the sampling and analysis has been completed.

18. Data Validation or Verification will be performed by:

ERU's general recommendation on validation is that a minimum of CLP-equivalent stage IIA verification and validation be performed for every SSSP involving laboratory analyses. However, stage IIB is preferred if the lab can provide it. Dioxins should be validated at CLP-equivalent stage 4.

	Data Verification and Validation Stages						
Performed by:	I	IIA	IIB	III	IV	Verification	Other:
E and E QA Reviewer					100%		
TechLaw QA Reviewer							
EPA Region 10 QA Office							
MEL staff							
Other:							

Source: Maptech, Inc. 2001.



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International Specialists in the Environment
Seattle, Washington

**BREMERTON
MGP WASTE RELEASE
Bremerton, Washington**

0 0.5 1
Approximate Scale in Miles

**Figure 1
SITE VICINITY MAP**

Date:
11-10-10

Drawn by:
AES

10:START-3\10100004\fig 1